

**Point Dume Neighborhood
Traffic Management Plan
Malibu, California**

September 4, 2002

Prepared For:
City of Malibu

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1. Introduction

This study presents the recommendations for Malibu's Point Dume residential neighborhood traffic management plan. The plan is intended to serve as guidance for a program of traffic safety features that could be installed in the future. It is not intended that all features be installed simultaneously and immediately. The features shown could be installed when the opportunities to do so arise.

The study area includes the area bound by Zuma Beach on the west, Zumirez Drive on the east, Pacific Coast Highway (PCH) on the north, and the ocean on the south. The study focuses on local public residential streets within the community. The Point Dume community is made up mostly of single-family residences. There are nearby commercial land uses at the intersection of Heathercliff Road and PCH. Heathercliff Road at PCH is the only signalized intersection serving the community. Dume Drive serves as the primary route for most trips in and out of the community. Zumirez Drive serves as a secondary route to PCH, by way of Wildlife Road and Fernhill Drive. Residents along these streets and other streets like Cliffside Drive have grown increasingly concerned with the volume of traffic and speeding.

Based on our meetings with staff and community representatives, Katz, Okitsu & Associates understands that the community would like to see a traffic management plan developed for their neighborhood to reduce vehicle speeds and increase safety on their streets. This residential neighborhood traffic management plan has been developed to address concerns expressed by the City and residents concerning traffic in the area. The plan is also intended to provide a mechanism to maintain the quality of life of residents in the neighborhood.

The plan addresses the following issues in the Point Dume area:

- a. Reduce speeding on the residential roads within the study area.
- b. Provide better visibility of roadway edges to help prevent vehicle run-offs at night.
- c. Improve pedestrian and driver safety by delineating walkways more clearly.

The plan proposed herein offers a range of options that can be implemented regarding the above issues.

2. Study Area

Figure 1 illustrates the study area and includes the existing traffic controls. The area encompasses most of the Point Dume promontory and is bounded by Pacific Coast Highway to the north, Heathercliff road to the west, Birdview Avenue and Cliffside Drive to the south and Fernhill Drive (along with Zumirez Drive, Wildlife Drive, Grayfox Street and Bison Court) to the east. The study does not include the gated community at the south end of Heathercliff Road.

Traffic Controls

In general, on-street parking is allowed on most streets, with the notable exception of streets near the coast where parking is prohibited. Many of the streets are posted with 30 mph speed limit signs. Other streets have no posted speed limits, meaning that a 25 mph speed limit applies on those streets. In addition, near the Point Dume Marine Science Elementary School, 25 mph speed limits apply when school children are present.

Stop signs are typically posted on the stem leg of "T" shaped intersections, and on the street with lesser traffic at four-legged intersections. There are a few intersections with all-way stops: Heathercliff Road and Dume Drive, Grayfox Street and Fernhill Drive, Wildlife Road and Fernhill Drive, Sea Lion Place and Dume Drive, and Fernhill Drive and Sea Ranch Way (a private road.)

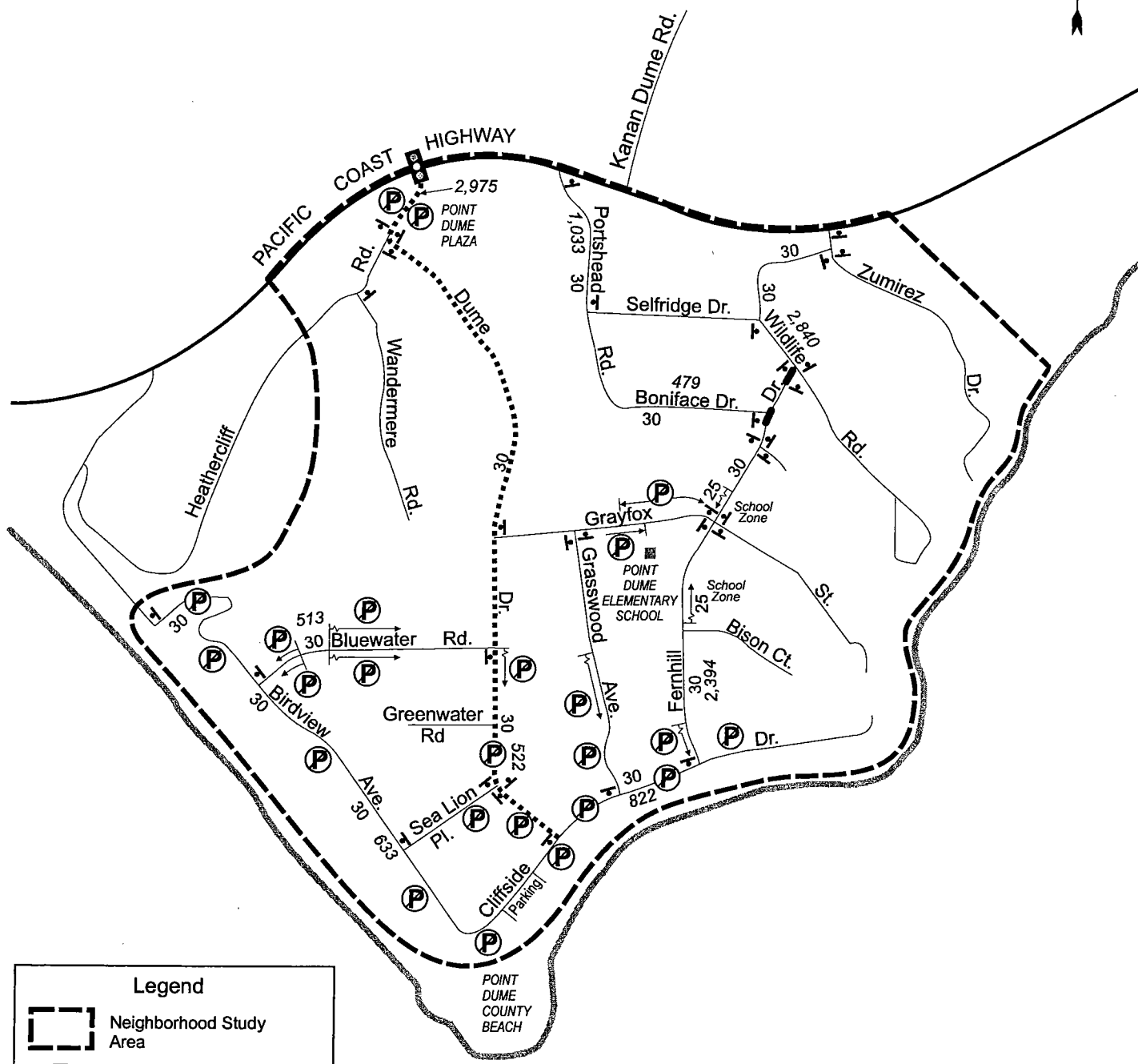
Roadways and Right-of-Way

Figure 2 shows the right-of-way widths and pavement widths. It should be noted that the roadways that have been constructed within the Point Dume area use only a small portion of the public right-of-way. For instance, Dume Drive has a 24-foot pavement width, but the right-of-way is much wider at 60 feet. This means that on average, 18 feet of additional public right-of-way exists on each side of Dume Drive, providing an opportunity to separate pedestrian and motor vehicle traffic. One commonly voiced concern is related to pedestrian activity: pedestrians throughout the Point Dume neighborhood must often walk on roadways, including the primary access roads such as Dume Drive, despite the fact that the public rights-of-way along these roads are much wider than the roadways. Due to the absence of walkway plans or improvements, these rights-of-way have been encroached upon by the adjacent properties with fences and other obstructions, pushing pedestrians into the street.

A discussion of primary roadways within the residential study area is provided below.

Pacific Coast Highway (SR-1) is the primary arterial running east to west through the entire City of Malibu. This four lane arterial forms the northern boundary of the study area and runs east to west as it swings past Point Dume. The roadway provides primary access to the Point Dume neighborhood area.

Dume Drive forms a north to south spine down the center of the Point Dume neighborhood area. It extends from its intersection with Heathercliff Road in the north – close to Pacific Coast Highway – down to Cliffside Drive at the southern tip of the study area. The roadway is 24 feet wide with two travel lanes.



Legend

Neighborhood Study Area

Traffic Signal

Stop Sign

No Parking Zone

Median Delineators

Fog Lines

30 Posted Speed Limit (MPH)

2,975 2-Way Average Daily Traffic*

*Source: May 2000 Speed Zone Surveys



Legend



Neighborhood Study Area

XX'/YY'

XX' = Pavement Width
YY' = Right-of-Way Width

Fernhill Drive runs north to south in the eastern half of the study area. It extends from Zumirez Drive in the north to Cliffside Drive in the south. The roadway is between 24 and 30 feet wide with two travel lanes.

Grayfox Street is a local street, which runs east to west in the middle of the study area. It extends from Dume Drive in the west to a cul-de-sac east of Fernhill Drive. The roadway is between 24 and 32 feet wide with two travel lanes.

Birdview Avenue is a local street, which forms part of the southern boundary of the study area and runs adjacent to the coast. It extends from Heathercliff Road in the west to Cliffside Drive at the southern tip of Point Dume. The roadway is 26 feet wide and has two travel lanes.

Cliffside Drive is a local street, which forms part of the southern boundary of the study area and runs adjacent to the coast. It extends from Birdview Avenue in the west at the southern tip of Point Dume, to a cul-de-sac to the east of Fernhill Drive. The roadway is 24 feet wide and has two travel lanes.

Portthead Road is a local street is a north-south local street, which provides another access into the Point Dume neighborhood by way of its intersection with Pacific Coast Highway. The roadway is 24 feet wide and has two travel lanes.

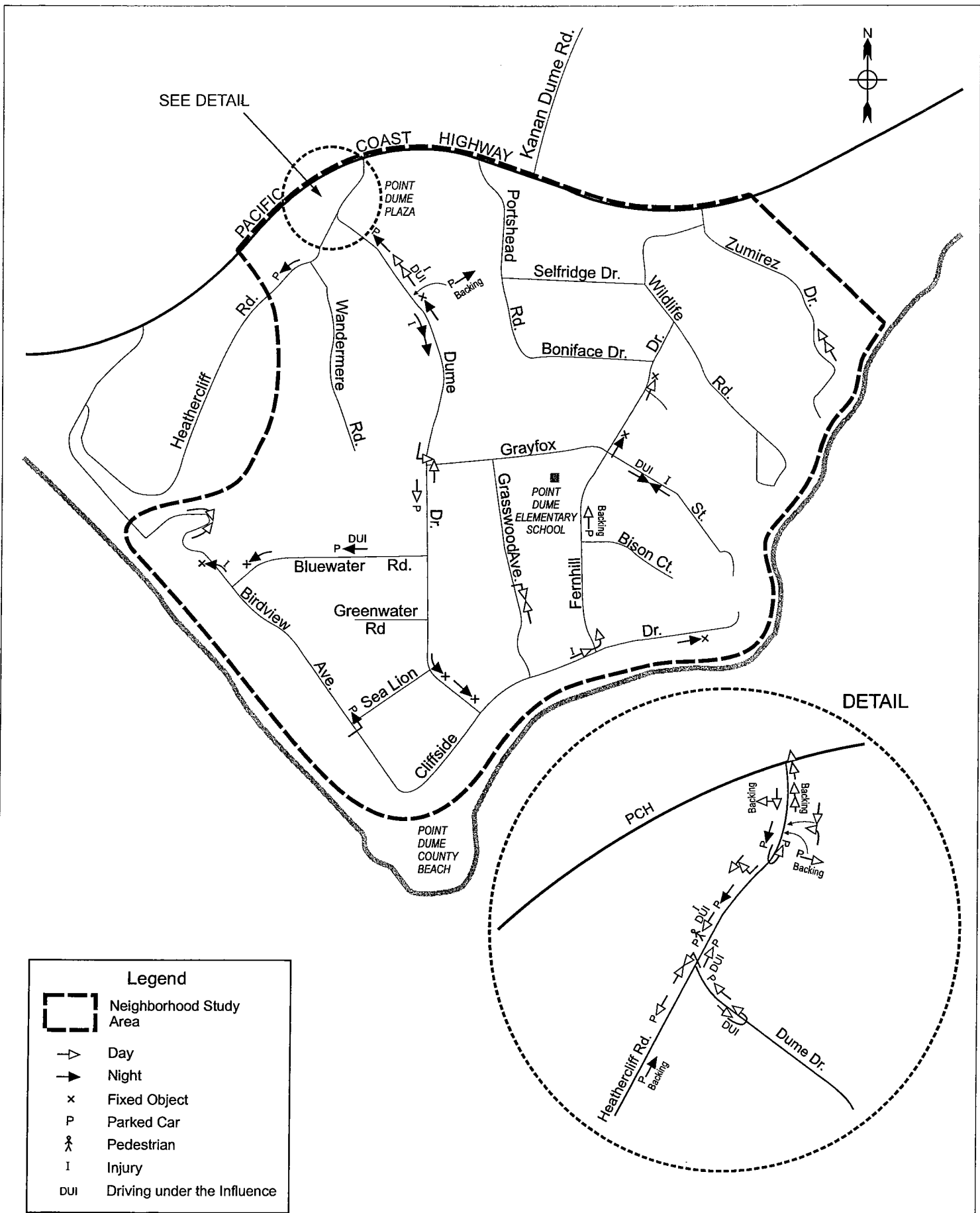
Accident History

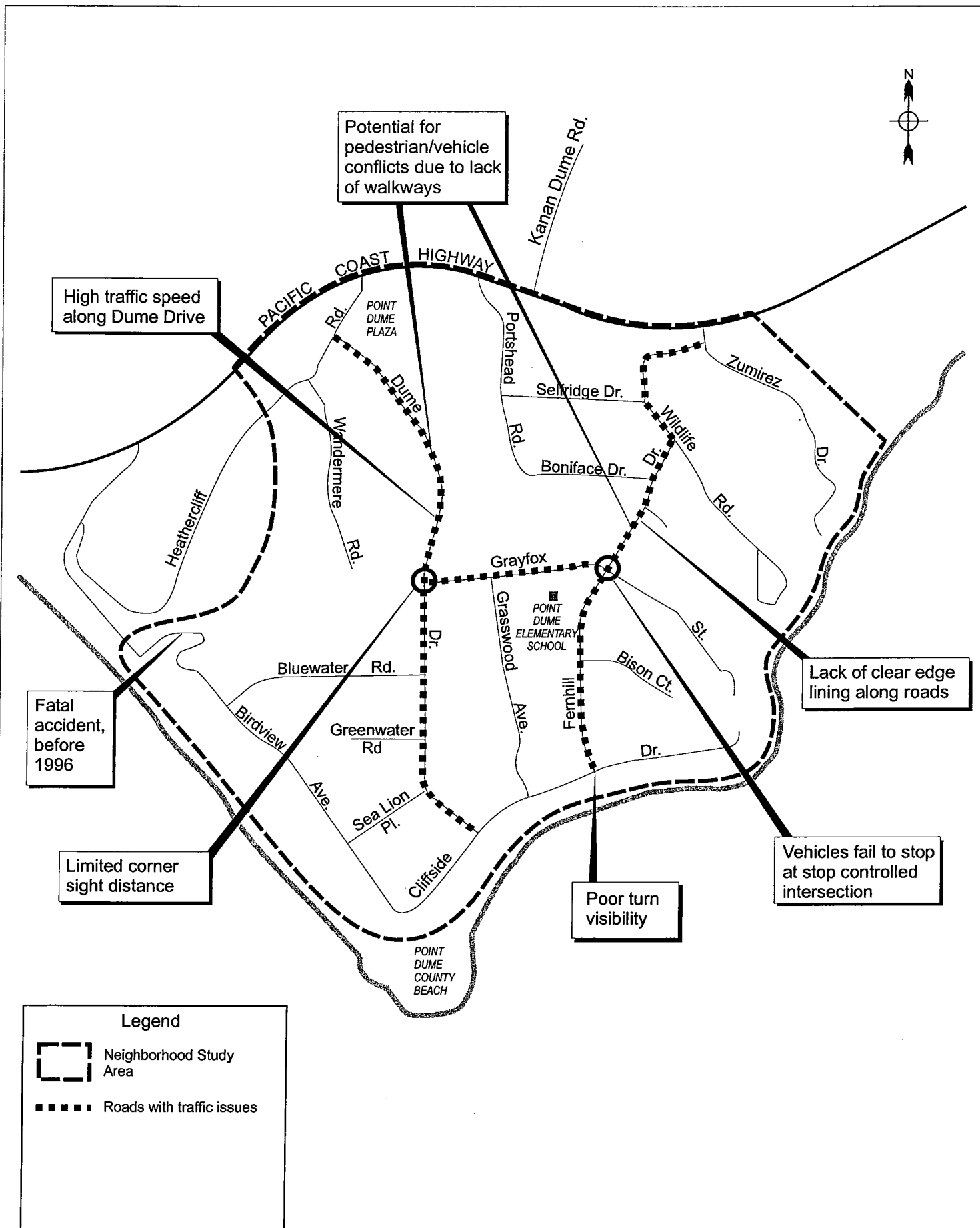
Figure 3 shows the accident history in the neighborhood for the five-year period from 1996 to 2000. The accidents shown are derived from California Highway Patrol reports known as SWITRS, for "Statewide Integrated Traffic Report System". A summary of the SWITRS data is shown in Appendix 2. There have been 37 reported accidents over that period.

It should be noted that the accidents shown are only the ones reported by the LA County Sheriff's Department. Several other accidents that have occurred during the five year period might not have been reported, and therefore do not show up in the figure.

The highest concentration of accidents occurs in the commercial area along Heathercliff Road between Dume Drive and Pacific Coast Highway. Most of these accidents seem to be related to accessing driveways and parking spaces, which is beyond the scope of this neighborhood traffic safety study. Solutions to the accident problem along Heathercliff Road should be handled separately from those in the residential neighborhood.

Looking at the residential area beyond Heathercliff Road, there were 21 reported accidents over the five-year period. According to a speed zone study performed by the City in May 2000, this number of accidents appears to be roughly equivalent to expected rates of accidents for urban two and three lane streets. The most common accidents appear to involve fixed objects or parked cars. No location has high concentration of accidents. Accidents are spread throughout the area. As a result, the objective of the neighborhood traffic management plan for Point Dume should be intended to enhance the feeling of safety rather than address a specific accident problem.





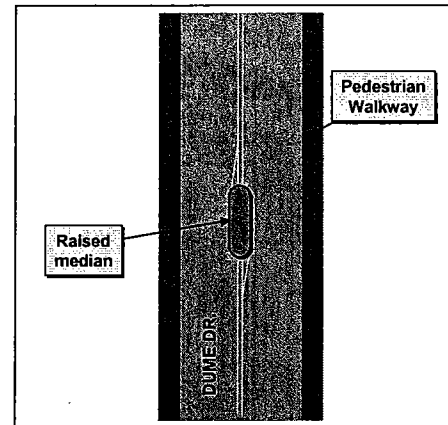
4. Proposed Improvements

Figure 5 shows the proposed neighborhood protection measures. The measures are focused onto Dume Drive, Grayfox Street, Fernhill Drive and Wildlife Road.

A. Dume Drive

Median Slow Points

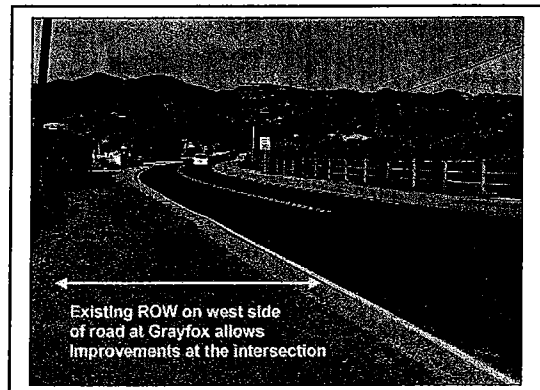
The higher traffic speeds along Dume Drive and the potential for nighttime vehicle run-offs influenced the measures proposed for this road. One tool for the reduction of traffic speed is the implementation of a median slow point. These are relatively narrow and short median segments designed to provide the driver with an apparent narrowing of the roadway, which usually results in reduced travel speeds.

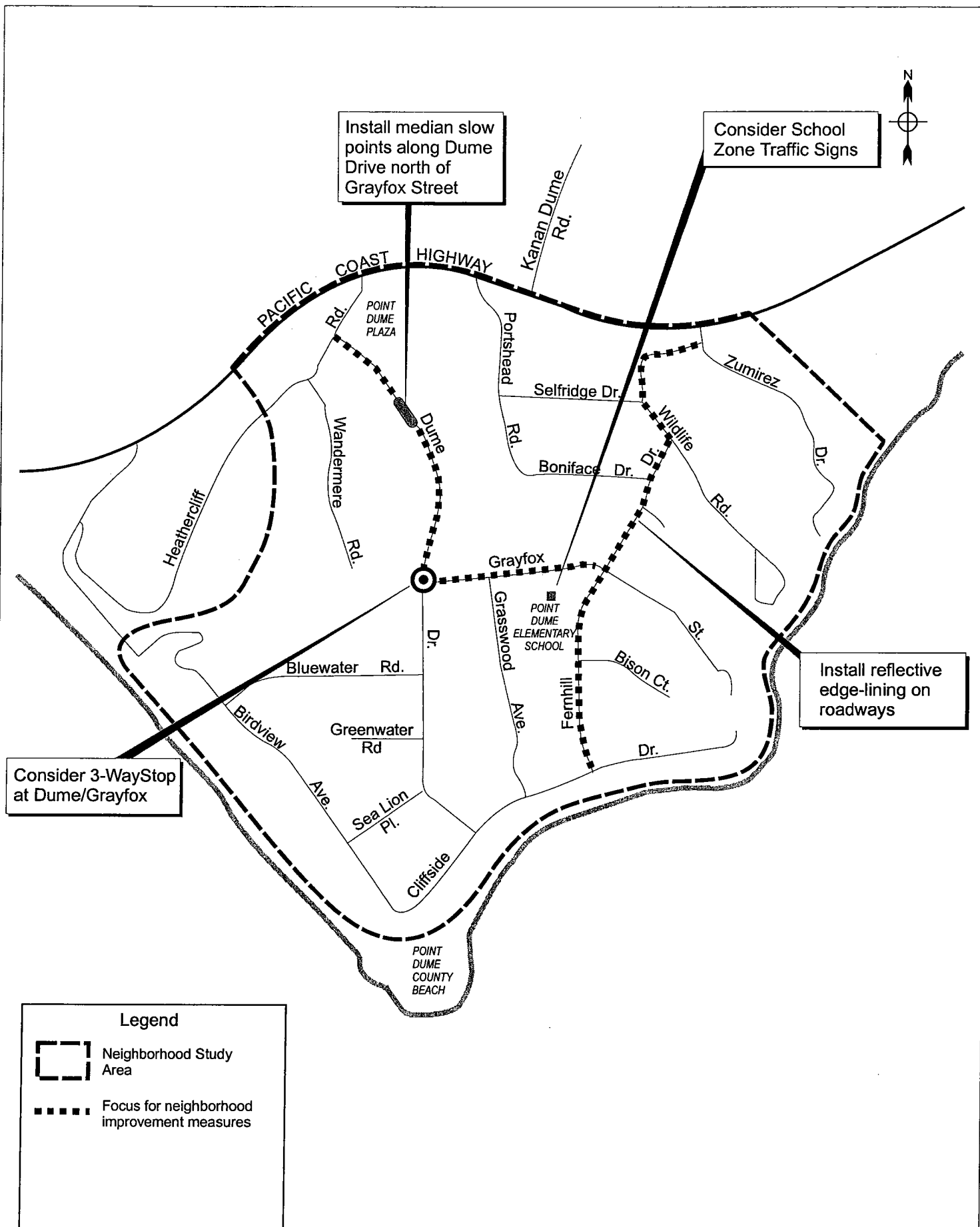


It is anticipated that one or more of these median slow points could be placed along Dume Drive. One particular location would be between Grayfox Street and Heathercliff Road. The effective slowing of traffic could also help to minimize vehicle run-offs.

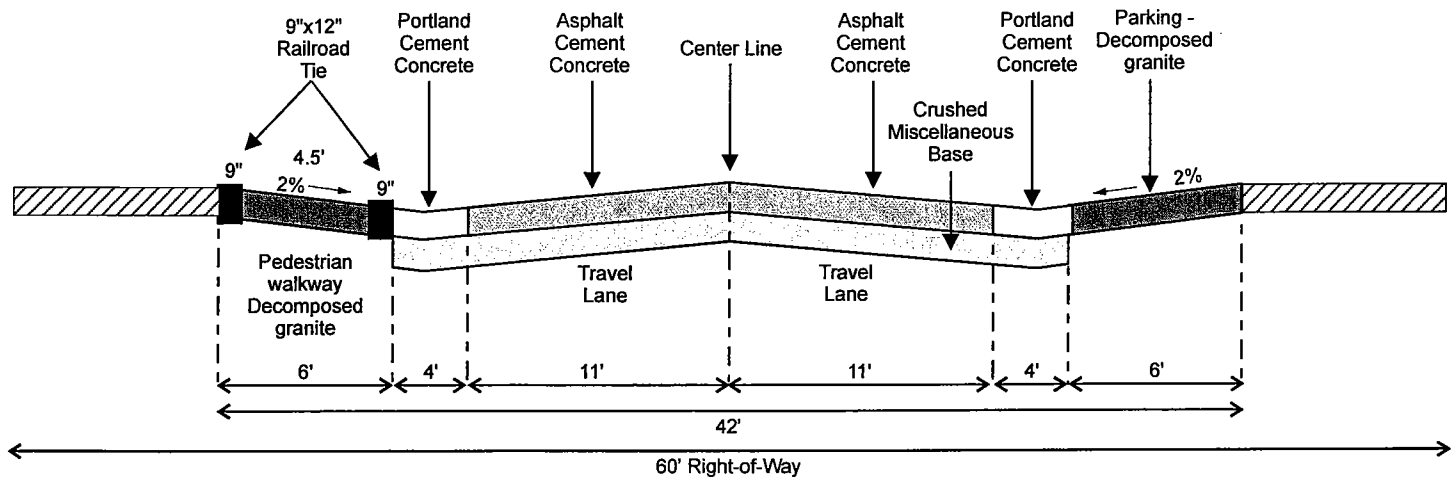
Pedestrian Walkways and Edge Striping

In order to accommodate pedestrians more safely and efficiently within the available right-of-way, it is proposed to introduce decomposed granite walkways with timber barriers to provide protection from vehicular traffic along streets with no roadside parking. The walkways would be similar to the existing walkway that exists along the west edge of Wildlife Road between Zumirez Drive and Selfridge Drive. Figure 6 illustrates how these walkways would be designed. The figure also shows how the walkways would be integrated into the median slow points discussed earlier. These measures should be possible because of the available 60 feet of right-of-way along Dume Drive – subject to detailed design review. Reflective edge lining would be striped along the edge of the pavement to provide enhanced delineation at night and help minimize vehicular run-off accidents. These measures would improve both pedestrian and vehicular safety without degrading the rural quality of the area.

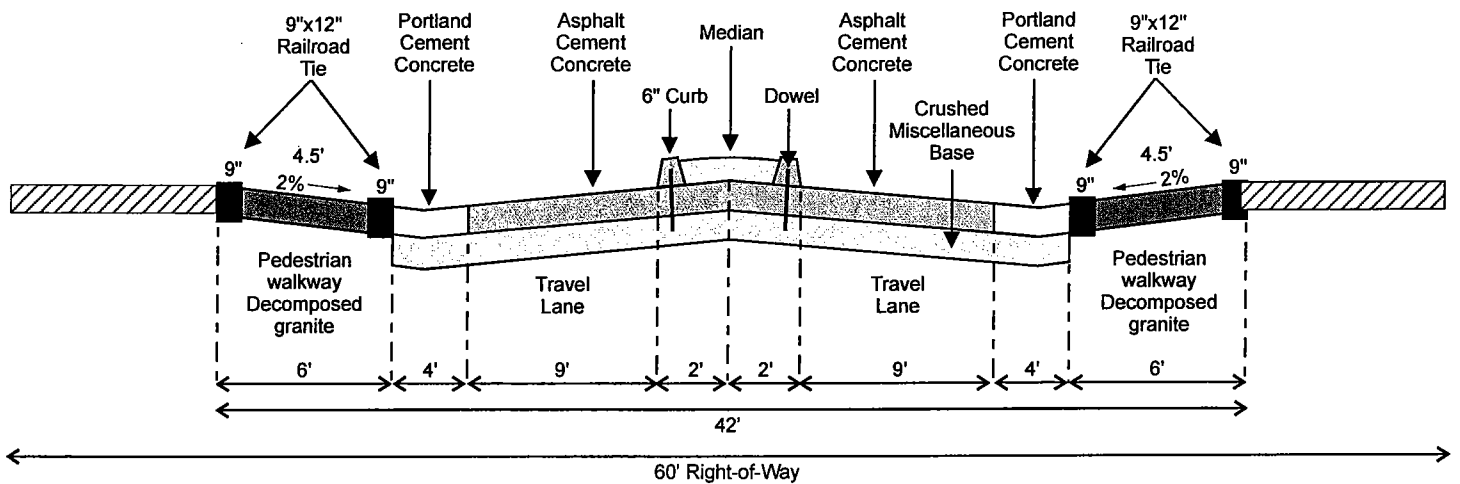




Roadway Cross Section with Pedestrian Walkways on One Side and Parking on the Other



Roadway Cross Section with Median Slow Point



For streets with roadside parking, the timber-lined walkway could be replaced with a decomposed granite shoulder, to provide space for parked cars while accommodating pedestrians.

All-way Stop Control

All-way stop control at the intersection of Dume Drive and Grayfox Street may be considered as a safety measure to resolve a corner sight distance problem. The presence of electrical utility equipment on the southeast corner of the intersection reduces visibility of oncoming northbound Dume Drive traffic for motorists stopped on Grayfox Street. Traffic volumes at the intersection are not sufficient to meet the warrants established by Caltrans for installation of all-way stops. However, all-way stops may be installed in locations with a proven accident problem. Unless the corner sight distance problem could be resolved through relocation of the equipment, all-way stop signs should be considered if an accident problem were to become evident.

B. Grayfox Street

School Safety Zone

Point Dume Elementary School is located along Grayfox Street between Grasswood Avenue and Fernhill Drive. In order to enhance the awareness of motorists that school children may be present, it is proposed to introduce new lime-green high visibility school zone signs.

Pedestrian Walkways and Edge Striping

The right-of-way along Grayfox Street is between 50 and 54 feet. This could permit the installation of walkways, separated from the street by either a timber barrier where parking is prohibited, or a shoulder to allow roadside parking. These would only be introduced where there are currently no sidewalks; adequate concrete sidewalks are already provided adjacent to the elementary school and these would remain. Roadway edge striping would be provided as needed along the entire length of Grayfox Street between Fernhill Drive and Dume Drive.

C. Fernhill Drive

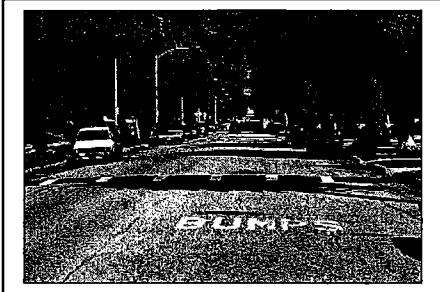
Pedestrian Walkways and Edge Striping

It is proposed to introduce the decomposed granite walkways with the timber barriers as discussed earlier in this report for Dume Drive and Grayfox Street. The right-of-way along Fernhill Drive is 60 feet, which should permit the installation of the walkways. If parking is a concern on some segments, a mountable shoulder could be provided instead to allow for roadside parking.

5. Improvements Not Recommended for This Area

There are wide ranges of other neighborhood improvement measures available to traffic engineers. Many were considered for the Point Dume neighborhood, but were not recommended for use.

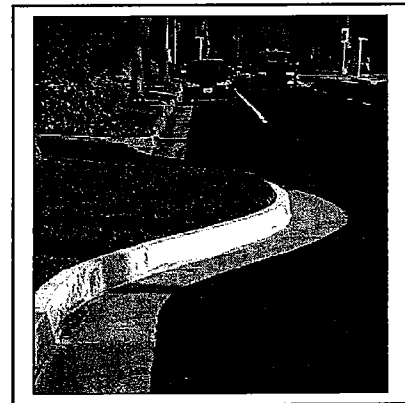
Speed Humps



Both temporary and permanent speed humps were considered for the area as a means of reducing traffic speeds. They pose problems, however, relating to noise and emergency service access times. In addition, there is the potential for driveway blockage. The Malibu Public Safety Commission, at its meeting of August 7, 2002, passed a motion expressing that they will not support the use of speed humps in this area.

Roadway Bulges

Bulges result in a localized narrowing of the roadway pavement area and can be useful in reducing travel speeds and providing emphasis for the residential nature of an area. However, they require a clearly defined roadway edge and curb in order to work effectively. In the case of the roads in the Point Dume area, such clearly defined curbs are not provided. Roadways tend to taper off into grass and scrub thus making it difficult to introduce bulges.



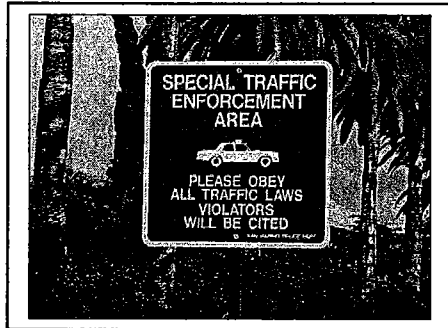
Roadway Diverters

These are used to divert traffic away from certain roadways and to force specific traffic movements. They are used to eliminate cut-through traffic on residential streets adjacent to heavily traffic major arterials. There are no clear locations where these devices would prove useful in the Point Dume area.



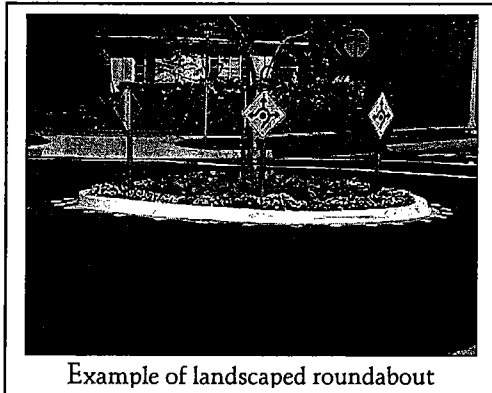
Special Enforcement Signs

Some cities have installed special signs intended to further emphasize that traffic laws will be enforced. Such signs may result in reducing traffic speeds and enhancing the “neighborhood” image. These signs would be placed at entry points into the neighborhood on Heathercliff Road, Dume Drive, Portshead Road, Zumirez and Fernhill Drives. They could also be placed at intervals along these roads for added emphasis. It should be noted that traffic laws in the Point Dume neighborhood would not be enforced any differently than in other parts of Malibu. As a result, the decision to install these signs could be based on weighing their perceived value in raising consciousness about traffic laws versus the potential for additional clutter along the roadway.



Roundabout

Some cities use a roundabout (traffic circle) operation as a means of dealing with motorists disregarding the current stop sign controls. A roundabout would force approaching motorists to slow down to negotiate the merge. The central island of the roundabout and the entry islands could be planted and landscaped to add to the attractiveness of the design. The Malibu Public Safety Committee passed a motion that expressing their non-support of the use of roundabouts in this study area, at their August 2002 meeting.



6. Conclusions

This report offers suggestions to address neighborhood impacts caused by high traffic speed, vehicle run-off accidents, pedestrian/vehicle conflicts and general pedestrian safety in the vicinity of the school and also alongside the roadways in the study area. The measures proposed were developed following input from public meetings with the community and are designed to complement the unique neighborhood quality of the Point Dume area rather than work against it.

The recommendations consist of the following:

- Provide for decomposed granite shoulders and walkways along Dume Drive between Heathercliff Road and Grayfox Street, along Grayfox Street between Dume Drive and Point Dume Elementary School, along Fernhill Drive between Cliffside Drive and Wildlife Road, and along Wildlife Road between Fernhill Drive and Zumirez Road. Install reflective edge striping on these segments.
- Install a median slow point on Dume Drive between Heathercliff Road and Grayfox Street.
- Consider installation of all-way stop control at the intersection of Dume Drive and Grayfox Street.
- Consider the installation of lime-green school zone crossing signs near Point Dume Elementary School.

Appendix A: Accident History Data



Katz, Okitsu & Associates

5-YEAR ACCIDENT HISTORY: POINT DUME NEIGHBORHOOD

Source: CHP SWITRS (Statewide Integrated Traffic Record System) Reports, 1996-2000

Primary Rd	dist. dir	Secondary Rd	day	time	date	road surf	weather	cond	lighting	kill- ed	In- jured	PCF	Type Collision	MVIW	Party 1			Party 2			Party 3 Type				
															Type	SDP	movement	Dir	Veh Type	Other factor		Type	movement	Dir	Veh Type
Birdview Av	528 w/o	Bluewater Rd	Fri	2:00	9/1/00	dry	clear	norm	drk-no light		1	unsafe speed	hit obj	other obj	drvr	IMPU	ranoffrd	w	pass/stwgn	lane change	drvr	proc st	n	pass/stwgn	
Birdview Av	1182 s/o	Westward Bch	Sun	7:40	8/30/98	dry	clear	norm	daylight			wrong side	brdside	other MV	drvr	HNBD	oppos In	s	pass/stwgn	inattention	drvr	proc st	n	pass/stwgn	
Bluewater Rd	300 e/o	Birdview Ln	Wed	23:55	7/24/96	dry	clear	loose	drk-no light			unsafe speed	hit obj	fixed obj	drvr	IMPU	proc st	w	other						
Bluewater Rd	1584 w/o	Dume Dr	Fri	17:55	11/26/99	dry	clear	norm	drk-no light			alc/drg	hit obj	fixed obj	drvr	HBDI	proc st	w	pickup/pan	unsafe speed	prkd	parked		pass/stwgn	prkd
Cliffside Dr	1492 e/o	Fernhill Rd	Sat	1:45	9/19/98	dry	clear	norm	drk-lgts			unsafe speed	hit obj	other obj	drvr	IMPU	proc st	e	pass/stwgn	hit and run				pass/stwgn	
Cliffside Dr		Fernhill Rd	Sun	14:25	4/23/00	dry	clear	norm	daylight		2	wrong side	rearend	other mv	drvr	?	passing	e	pass/stwgn	unsafe speed	drvr	lift-turn	e	pickup/pan	
Dume Dr	2110 n/o	Grayfox St	Sat	0:32	6/20/98	dry	clear	norm	drk-no light			unsafe speed	hit obj	fixed obj	drvr	drvr	ranoffrd	n	pass/stwgn						
Dume Dr	373 s/o	Grayfox St	Fri	15:20	5/24/96	dry	clear	norm	daylight			improp turn	brdside	other MV	drvr	HNBD	lift-turn	s	other bus		drvr	stopped	n	pickup/pan	
Dume Dr		Heathercliff Rd	Tue	13:00	1/28/97	dry	clear	norm	daylight			improp turn	rearend	other MV	drvr	HNBD	proc st	s	pass/stwgn		prkd	parked	s	pass/stwgn	
Dume Dr	401 e/o	Heathercliff Rd	Thu	16:00	1/30/97	dry	clear	norm	daylight			stop sgn/sig	brdside	other MV	drvr	HNBD	lift-turn	w	pass/stwgn		drvr	proc st	n	pass/stwgn	
Dume Dr	28 e/o	Heathercliff Rd	Thu	14:30	12/4/97	dry	clear	norm	daylight			alc/drg	brdside	other MV	drvr	HBDI	U-turn	e	pass/stwgn	improp turn	drvr	proc st	e	pickup/pan	
Dume Dr	2640 S	Heathercliff Rd	Wed	17:45	12/8/99	dry	clear	norm	daylight			alc/drg	sideswp	other MV	drvr	HNBD	proc st	w	other bus		prkd	parked	w	other	
Dume Dr		Heathercliff Rd	Fri	19:10	5/5/00	dry	clear	norm	drk-lgts		1	unsafe speed	rearend	other mv	drvr	HNBD	proc st	s	pass/stwgn	inattention	drvr	stopped	s	pass/stwgn	
Dume Dr	1320 e/o	Heathercliff Rd	Sun	8:35	6/25/00	dry	clear	norm	duskdawn			alc/drg	rearend	parked MV	drvr	HBDI	proc st	e	pickup/pan	improp turn	prkd	parked	e	pass/stwgn	
Dume Dr	1584 s/o	Heathercliff Rd	Mon	0:00	12/30/96	dry	clear	norm	drk-no light		1	alc/drg	rearend	other MV	drvr	HBDI	proc st	w	pass/stwgn	unsafe speed	ped	in road	e	pass/stwgn	
Dume Dr	8 e/o	Sealion Pl	Fri	21:50	3/24/96	dry	clear	norm	daylight		2	alc/drg	brdside	other MV	drvr	IMPU	backing	n	other		prkd	parked	w	pass/stwgn	prkd
Dume Dr	41 s	Sealion Pl	Sun	2:00	3/24/96	dry	clear	norm	drk-no light			unsafe speed	hit obj	fixed obj	drvr	HBDI	proc st	n	pass/stwgn	too close	drvr	stopped	n	pass/stwgn	
Fernhill Dr	154 s/o	Boniface Dr	Tue	18:00	6/17/97	dry	clear	norm	daylight			unsafe speed	hit obj	fixed obj	drvr	HBDU	proc st	e	pickup/pan	stop sign	drvr	other	e	pass/stwgn	
Fernhill Dr	25 n/o	Grayfox St	Thu	18:30	12/25/97	dry	clear	norm	daylight			lane change	hit obj	fixed obj	drvr	HNBD	proc st	s	pickup/pan	improp turn					
Fernhill Dr	686 s/o	Grayfox St	Sun	16:30	1/3/99	dry	clear	norm	daylight			unsafe speed	hit obj	fixed obj	drvr	HBND	ranoffrd	n	pass/stwgn	inattention					
Grasswood Av	528 n/o	Cliffside Dr	Wed	8:30	1/19/00	dry	clear	norm	daylight			string/bocking	brdside	parked MV	drvr	HNBD	proc st	n	pass/stwgn	stop sign					
Grayfox St	192 e/o	Fernhill Rd	Fri	20:30	10/31/97	dry	clear	norm	daylight		1	ROW auto	brdside	other MV	drvr	HNBD	backing		pickup/pan		prkd	parked	n	pass/stwgn	
Heathercliff Rd	115 s/o	Dume Dr	Tue	16:30	1/7/97	dry	clear	norm	daylight			alc/drg	head-on	other MV	drvr	HBDI	proc st	e	pickup/pan	vis obscured	drvr	proc st	n	pass/stwgn	
Heathercliff Rd	300 s/o	Dume Dr	Mon	21:50	1/27/97	dry	clear	norm	daylight			alc/drg	brdside	parked MV	drvr	HNBD	proc st	s	pass/stwgn	inattention	drvr	proc st	e	pickup/pan	
Heathercliff Rd	347 e/o	Dume Dr	Tue	16:05	5/19/98	dry	clear	norm	daylight			improp turn	sideswp	other MV	drvr	IMPU	U-turn	s	pass/stwgn	hit and run	prkd	parked	n	pass/stwgn	
Heathercliff Rd	343 e/o	Dume Dr	Wed	14:10	11/18/98	dry	clear	norm	daylight			improp turn	sideswp	other MV	drvr	HNBD	rgt-turn	w	pass/stwgn		drvr	proc st	w	pass/stwgn	
Heathercliff Rd	58 n/o	Dume Dr	Mon	22:30	1/31/00	dry	clear	norm	drk-lgts			lane change	sideswp	other MV	drvr	HNBD	proc st	s	pass/stwgn	unsafe speed	prkd	parked	n	pass/stwgn	
Heathercliff Rd	1320 s/o	Rt 1	Mon	16:00	1/10/00	dry	clear	norm	drk-no light			unsafe speed	sideswp	parked MV	drvr	HNBD	proc st	s	pass/stwgn	inattention	prkd	parked	n	pass/stwgn	
Heathercliff Rd	124 s/o	Rt 1	Wed	15:20	2/23/00	dry	cloudy	norm	daylight			ROW auto	other	other mv	drvr	HNBD	proc st	s	pass/stwgn		prkd	parked	s	pass/stwgn	
Heathercliff Rd	152 s/o	Rt 1	Thu	14:20	12/7/96	dry	clear	norm	daylight			unsafe speed	brdside	parked MV	drvr	HNBD	backing	w	pass/stwgn	string/bocking	drvr	stopped	n	pass/stwgn	
Heathercliff Rd	12 s/o	Rt 1	Sat	12:40	12/7/96	dry	clear	norm	daylight			unsafe speed	brdside	other MV	drvr	HNBD	backing	e	pickup/pan	hit and run	prkd	parked	n	pass/stwgn	
Heathercliff Rd	160 s/o	Rt 1	Mon	10:15	12/2/96	dry	clear	norm	daylight			unsafe speed	rearend	other MV	drvr	HNBD	rgt-turn	n	pass/stwgn		drvr	rgt-turn	n	pass/stwgn	
Heathercliff Rd	263 s/o	Rt 1	Thu	14:30	8/8/96	dry	clear	norm	daylight			ROW auto	head-on	other MV	drvr	HNBD	lift-turn	n	pickup/pan		drvr	proc st	s	pickup/pan	
Sea Lion Pl	15 e	Birdview Ln	Sun	0:10	5/5/96	dry	clear	norm	daylight			string/bocking	rearend	other MV	drvr	HNBD	backing	s	pickup/pan	inattention	drvr	stopped	n	pass/stwgn	
Zumirez Dr	2640 s/o	Wildlife Rd	Wed	16:45	1/14/98	dry	clear	norm	duskdawn			improp turn	brdside	parked MV	drvr	IMPU	lift-turn	e	pickup/pan	unsafe speed	prkd	parked	n	pass/stwgn	prkd